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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/685,297	10/10/2000	Robert B. Cody	3487-001146	4559

7590

03/05/2003

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EXAMINER

GORDON, BRIAN R

ART UNIT

PAPER NUMBER

1743

DATE MAILED: 03/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/685,297

Applicant(s)

CODY, ROBERT B.

Examiner

Brian R. Gordon

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1743

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 13 January 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 4-22-02 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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## **DETAILED ACTION**

### ***Response to Arguments***

1. In view of the appeal brief filed on January 13, 2003, PROSECUTION IS HEREBY REOPENED. In light of applicant's arguments the previous art rejections are hereby withdrawn. New grounds of rejection are set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

- (1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,
- (2) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-9 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The examiner has reviewed the specification and determined that it is unclear how the method of the invention may be employed.

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Applicant provides general antecedent basis for the method by reciting verbatim in the Summary of the Invention the steps of claim 1. The nature of the invention is understood to be a process of preparing a number of specimens and then taking a lesser number of the specimens and mixing them together, after mixing, the specimens are then subjected to a type of analysis (mass spectroscopy) in which the mixed specimens are analyzed simultaneously. The results or data from the analysis of the mixture are then "deconvoluted" via a well known mathematical method, the Hadamard transform, in order to once again separate the data into its corresponding information relating to the individual specimens of the mixture. It is understood that the prior art discloses methods and devices for analyzing individual samples or specimens in which the samples and specimens contain individual elements, components, or molecules that are detected, analyzed, or identified by such methods as mass spectroscopy and deconvoluted by means such as the Hadamard transform (see McLafferty US 4,931,639). It is also well known that multiple samples may be analyzed simultaneously (see Norman US 5,508,204).

Applicant's invention which requires the steps of a) preparing a plurality of N fluid specimens, b) introducing a first combination of r specimens wherein r is less than N into a homogenizing volume to create a homogenized specimens, c) introducing at least a portion of the homogenized specimen to the analyzing instrument and recording the results of the analysis maintaining an association with the combination of r specimens, d) introducing additional different combinations of specimens into said homogenizing volume and repeating steps b) and c) and e) with a programmed digital computer

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mathematically processing the recorded results to produce analysis corresponding to individual fluid specimens.

Applicant fails to provide an adequate amount of direction and specific working examples in which one would desire to use such a method. There are no specifics given as to how the  $N$  specimens are "prepared." Furthermore, there is no reasoning given for "introducing a first combination of  $r$  specimens where  $r$  is less than  $N$  into a homogenizing volume". It unclear why one would want to combine a number of specimens less than  $N$ , or any number of specimens to simultaneously analyze the mixture only to deconvolute the results. It is unclear how combining the specimens would be an advantage over the prior art when it has already been disclosed the individual specimens may be analyzed simultaneously.

There is also lack of basis of what is meant by "homogenizing" and the importance of being this step. The examiner considers an individual specimen, which contains different elements to be homogenized, and furthermore any mixture is a combination of uniformly distributed substances. The specification also fails to particularly show a working example in which a programmable digital computer is employed to mathematically process the recorded data.

The discloser also lacks the proper evidence to determine that the method could be performed as claimed to allow one to obtain the results as claimed by applicant. The method suggests that two or more unknown samples are mixed together and then are subjected to analysis that allows one to identify characteristics of the individual samples. However, it is well known in the art that when chemicals are mixed together chemical

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reactions may occur in which a new chemical is produced or the original samples are altered or entirely consumed in the reaction. Since the originally prepared samples may be altered or consumed, it is unclear how one would analyze the mixed samples and then deconvolute the results to obtain data that would identify or relate to the original samples. This would be particularly difficult or incorrect if the original samples are consumed in the reaction. Since the mixing of the samples may provide for the occurrence of unpredictable chemical reactions, it is unclear how such a method could be accurately executed as claimed by applicant. Therefore, the scope of the disclosure does not provide adequate support for enablement of the objective of the invention which appears to be in contrast of generally accepted scientific principles of mixing and analyzing chemicals.

Claim 2 recites that the specimens are gaseous specimens diluted with a carrier gas. The only mentioning of gas is found in the Background of the Invention on page 1, line 11 and Summary of the Invention on page 2, lines 27-28. However there is no working example given with which the specific method would be employed.

As recited above the prior art discloses the well known method of performing simultaneous mass spectroscopy analysis of samples, which may be injected into a system by means of electrospray nozzles (as given prior art see Background of Invention page 1, lines 6-10) that may be deconvoluted by means of the Hadamard transform and it is well known that a computer may be employed to perform this mathematical method. It appears that applicant has taken well known methods and principles (as admitted by applicant) to produce a method in which applicant now recites

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that multiple samples are combined. However due to the lack of working examples and evidence of how such a method would be beneficial the examiner hereby asserts that the specification is not enabled for the claimed method.

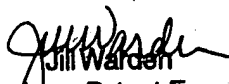
**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian R. Gordon whose telephone number is (703) 305-0399. The examiner can normally be reached on M-F, with 2nd and 4th F off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on 703-308-4037. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

brg  
March 3, 2003

  
Jill Warden  
Supervisory Patent Examiner  
Technology Center 1700